Application No. : 10/785,573
Amdt. Dated : December 21, 2006
Reply To O.A. Of : October 3, 2006

Amendments To The Claims

The listing of claims replaces all prior versions and listings of claims. Only those claims being amended herein show their changes in highlighted form, where insertions appear as underlined text (e.g., insertions) while deletions appear as strikethrough text (e.g., ~~deletions~~).

1. **(Currently Amended)** A method of managing power consumption in a pulse oximeter, the method comprising:

operating a pulse oximeter at a first approximate power consumption during a first signal condition representative of a condition of a signal received from a sensor capable of detecting energy attenuated by tissue of a measurement site of a patient;

determining a second signal condition of the signal; and

operating the pulse oximeter at a second approximate power consumption different than the first approximate power consumption based on the second signal condition, wherein the steps of operating the pulse oximeter at the first approximate power consumption and of operating the pulse oximeter at the second approximate power consumption comprises varying a duty cycle of a drive signal for the sensor.

2. **(Original)** The method of Claim 1, wherein the first signal condition corresponds to a high signal quality condition and the first approximate power consumption corresponds to a low power consumption.

3. **(Original)** The method of Claim 1, wherein the second signal condition corresponds to a low signal quality condition and the second approximate power consumption corresponds to a high power consumption.

4. **(Canceled)**

5. **(Currently Amended)** The method of Claim 14, wherein the first duty cycle comprises approximately three percent (3%) and the second duty cycle comprises approximately twenty-five percent (25%).

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6. (**Original**) The method of Claim 1, wherein the steps of operating the pulse oximeter at a first approximate power consumption and operating the pulse oximeter at a second approximate power consumption comprises varying a duty cycle of a drive signal for the sensor.

7. (**Original**) The method of Claim 6, wherein the varying the duty cycle comprises varying the duty cycle between approximately three percent (3%) and approximately twenty-five percent (25%).

8. (**Original**) A pulse oximeter capable of varying its power consumption, comprising:

an emitter driver which outputs a drive signal capable of driving at least one emitter of a sensor that detects energy attenuated by tissue of a measurement site of a patient; and

a controller which selects between at least a first duty cycle of the drive signal corresponding to a first power consumption and a second duty cycle of the drive signal corresponding to a second power consumption different than the first power consumption.

9. (**Original**) The pulse oximeter of Claim 8, wherein the first power consumption corresponds to a low power consumption and is associated with a high signal quality of at least one signal received from the sensor.

10. (**Original**) The pulse oximeter of Claim 8, wherein second power consumption corresponds to a high power consumption and is associated with a low signal quality of at least one signal received from the sensor.

11. (**Original**) The pulse oximeter of Claim 8, wherein the first duty cycle is substantially lower than the second duty cycle.

12. (**Original**) The pulse oximeter of Claim 11, wherein the first duty cycle comprises approximately three percent (3%) and the second duty cycle comprises approximately twenty-five percent (25%).

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13. **(New)** The method of Claim 1, wherein the steps of operating the pulse oximeter at the first approximate power consumption and of operating the pulse oximeter at the second approximate power consumption comprises varying an amount of data blocks processed.

14. **(New)** The method of Claim 1, wherein the steps of operating the pulse oximeter at the first approximate power consumption and of operating the pulse oximeter at the second approximate power consumption comprises varying power to a detector front end.

15. **(New)** The method of Claim 1, comprising:

determining a override condition exits; and

returning to operating the pulse oximeter at the first approximate power consumption.

16. **(New)** The pulse oximeter of Claim 8, wherein the controller varies an amount of data blocks processed.

17. **(New)** The pulse oximeter of Claim 8, wherein the controller varies power to a detector front end.

18. **(New)** The pulse oximeter of Claim 8, wherein the controller selects based on at least an estimate of power consumption as compared to a target power consumption.

19. **(New)** The pulse oximeter of Claim 8, wherein the controller selects based on a quality of a signal responsive to the detected energy from said sensor.

20. **(New)** The pulse oximeter of Claim 8, wherein the controller selects based on one or more determined values of a physiological parameter responsive to the detected energy from said sensor.